

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. - 20. (Canceled)
21. (Currently Amended) An implantable electrode comprising:
an electrode body having a substrate surface; and
a surface coating on said substrate surface,
said surface coating comprised of a gradient composition, said gradient composition further
comprised of a plurality of alternating layers of including a plurality of platinum layers and a
plurality of iridium oxide layers.
22. (Original) The implantable electrode of claim 21, wherein said substrate surface is
comprised of platinum gray.
23. (Canceled)
24. (Original) The implantable electrode of claim 21, wherein said substrate surface is a
rough surface.
25. (Original) The implantable electrode of claim 24, wherein said rough surface is a
sandblasted surface.
26. (Original) The implantable electrode of claim 24, wherein said rough surface is an
abraded surface.
27. (Canceled)

28. (Original) The implantable electrode of claim 21, wherein said gradient composition is comprised of electroplated material.

29. (Previously Presented) The implantable electrode of claim 21, wherein said gradient composition is an approximately linear gradient from essentially pure platinum to essentially pure iridium oxide.

30. (Previously Presented) The implantable electrode of claim 21, wherein at least one layer in said plurality of alternating layers is comprised of a fraction of platinum and a complementary fraction of iridium oxide.

31. (Previously Presented) The implantable electrode of claim 21, wherein said gradient composition varies stepwise in composition.

32. (Previously Presented) The implantable electrode of claim 21, wherein the platinum in the gradient composition is platinum gray.

33. (Previously Presented) The implantable electrode of claim 21, wherein the substrate surface is made of a biocompatible material with platinum or titanium conductive traces.

34. – 40. (Canceled)

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